

GRADING/UTILITY GRAPHIC LEGEND

---	PROPERTY LINE (PARCEL IN QUESTION)
---	OFF-SITE PROPERTY LINES
---	EXIST. CABLE LINE
---	PROP. CABLE LINE
---	EXIST. ELECTRIC LINE
---	PROP. ELECTRIC LINE
---	EXIST. FIBER OPTIC LINE
---	PROP. FIBER OPTIC LINE
---	EXIST. GAS LINE
---	PROP. GAS LINE
---	EXIST. OVERHEAD WIRES
---	PROP. OVERHEAD WIRES
---	EXIST. TELEPHONE LINE
---	PROP. TELEPHONE LINE
---	EXIST. WATER LINE
---	PROP. WATER LINE
---	EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
---	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
---	EXIST. SANITARY SEWER LINE
---	PROP. SANITARY SEWER LINE
---	EXIST. STORM DRAIN LINE
---	PROP. STORM DRAIN LINE
---	EXIST. MINOR CONTOUR & ELEVATION
---	PROP. MAJOR CONTOUR & ELEVATION
---	PROP. FINISH GRADE CONTOUR & ELEVATION
---	PROP. DIRECTION OF DRAINAGE FLOW ARROW
---	EXIST. SPOT ELEVATIONS
---	EXIST. OUTLET ELEV.
---	EXIST. TOP OF CURB ELEV.
---	EXIST. FINISH FLOOR ELEV.
---	EXIST. GARAGE FLOOR ELEV.
---	PROP. GRADE SPOT ELEV.
---	PROP. TOP OF CURB & FINISHED GRADE ELEV.
---	PROP. FINISHED FLOOR ELEV.
---	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (FACTORY BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
---	PROP. TOP OF EXTENDED WALL (FIN. FINISHED GRADE @ HIGH SIDE OF WALL (C) & FINISHED GRADE @ LOW SIDE OF WALL (D) (FACTORY BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
---	PROP. TOP OF EXTENDED CURB (C), FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB (D) & FINISHED GRADE @ LOW SIDE OF EXTENDED CURB (A)
---	EXIST. GUY WIRE
---	EXIST. LIGHT POLE
---	EXIST. BUILDING LIGHT
---	EXIST. SHOE BOX LIGHT
---	EXIST. COBRA LIGHT POLE
---	EXIST. TRAFFIC SIGNAL POLE
---	EXIST. MANHOLE
---	EXIST. "A" INLET
---	EXIST. "B" INLET
---	EXIST. "E" INLET
---	EXIST. YARD INLET
---	EXIST. FLARED END SECTION
---	EXIST. HEADWALL
---	EXIST. MONITORING WELL
---	APPROX. TEST PIT LOCATION
---	EXIST. FIRE HYDRANT
---	EXIST. WATER VALVE
---	EXIST. GAS VALVE
---	EXIST. GAS METER
---	EXIST. ELECTRIC METER
---	EXIST. ELECTRIC BOX
---	EXIST. CLEAN OUT
---	EXIST. WELL
---	EXIST. WATER SHUT OFF VALVE
---	EXIST. TELEPHONE BOX
---	EXIST. UTILITY POLE
---	PROP. WATER VALVE
---	PROP. STORM CLEANOUT
---	PROP. SANITARY CLEANOUT
---	PROP. AREA LIGHT
---	PROP. OUTLET CONTROL STRUCTURE
---	PROP. DRAINAGE MANHOLE
---	PROP. SANITARY SEWER MANHOLE
---	PROP. "A" INLET
---	PROP. "B" INLET
---	PROP. "E" INLET
---	PROP. YARD INLET
---	PROP. FLARED END SECTION
---	PROP. HEADWALL

DYNAMIC ENGINEERING
ENGINEERING • SURVEY • TRAFFIC

ELITE PROPERTIES
 PROPOSED RESIDENTIAL DEVELOPMENT
 BLOCK 10801, LOT 3
 621 VALLEY ROAD (C.R. 512)
 TOWNSHIP OF LONG HILL, MORRIS COUNTY, NEW JERSEY

811
 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF ENGINEERS, DESIGNERS, OR ANY PERSON PREPARING TO DIGGING THE EARTH SURFACE ANYWHERE IN ANY STATE.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

DYNAMIC ENGINEERING
 LAND DEVELOPMENT CONSULTING • PERMITTING
 GEOTECHNICAL • ENVIRONMENTAL
 TRAFFIC • SURVEY • PLANNING & ZONING
 245 Main Street, Suite 110
 Chester, NJ 07930
 T: 908.879.9229 | F: 908.879.0222
 Offices conveniently located at:
 Clark County, New Jersey • 1-724-751-0276
 Chester, New Jersey • 1-908-879-9229
 Newark, New Jersey • 1-973-755-7200
 Torrington, New Jersey • 1-732-375-6788
 Newton, Pennsylvania • 1-807-685-0276
 Allen, Texas • 1-972-324-2100
 Houston, Texas • 1-281-989-6400
 Gulf Breeze, Florida • 1-924-646-2946
 Delray Beach, Florida • 1-561-921-8570

JOSEPH G. JAWORSKI
 PROFESSIONAL ENGINEER
 NEW JERSEY LICENSE No. 36618

BRETT W. SKAPINETZ
 PROFESSIONAL ENGINEER
 NEW JERSEY LICENSE No. 41985

TITLE: DRAINAGE & UTILITY PLAN

SCALE: (H) 1"=30'
 (V) 1"=30'
 DATE: 08/07/2020
 PROJECT No: 0555-99-010
 SHEET No: **8** OF 21
 Rev. #: 0

Plotted: 08/07/20 - 10:48 AM, By: ajwright
 File: \\despc\local\despc\data\DEPC\PROJECTS\0555 Elite Properties\09-010 Long Hill\Draw\Site Plans\055599010SU.dwg, -----> 07 DRAINAGE & UTILITY PLAN
 COPYRIGHT © 2020 - DYNAMIC ENGINEERING CONSULTANTS, PC - ALL RIGHTS RESERVED

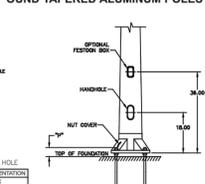
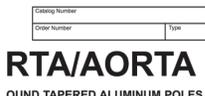
FEATURES & SPECIFICATIONS

CONSTRUCTION - Poles shall be fabricated to meet AASHTO 2009 requirements. Weeds conform to applicable AWS structural welding code. Pole shall be one piece, 6063 aluminum alloy, heat treated to a T6 temper. Pole base shall be 356 or 406 aluminum alloy, heat treated to a T6 temper after casting. Hand holes as 2" x 4" minimum, cover and fasteners are zinc plated. Nut covers shall be provided as standard. Finish shall match pole. Non-structural fasteners shall be stainless steel.

FINISH - Anodize, painted, or satin finish. Painted poles shall be semi-gloss powder paint.

GROUNDING - Grounding provision shall be immediately accessible through hand hole, 3/8-16 threads.

ANCHOR BOLTS - Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanized. Nut and washers shall be per AASHTO M314-90 or ASTM F 1554 - hot dip galvanized.



POLE ORDERING DATA

How to construct a catalog number for RTA poles:
EXAMPLE RTA250E P2 ND BZ 1 Fill in Catalog Number

RTA250E P2 ND BZ 1

1 2 3 4 5

STEP	CATALOG NUMBER	DESCRIPTION	FINISH	ANCHOR BOLT	ANCHOR SET	ANCHOR TEMPLATE
1. BASE POLE	RTA	ROUND TAPERED ALUMINUM	AS	AS	AS	AS
2. POLE TOP STYLE	DT	DRILLING FOR LIGHT	DT	DT	DT	DT
3. POLE TOP ORNAMENT	NO	NO DRILLING FOR LIGHT	NO	NO	NO	NO

ITEM NO.	DESCRIPTION	QTY	UNIT
1	DRILLING FOR LIGHT	1	POLE
2	DRILLING FOR LIGHTS	1	POLE
3	DRILLING FOR LIGHTS	1	POLE
4	DRILLING FOR LIGHTS	1	POLE
5	DRILLING FOR LIGHTS	1	POLE
6	DRILLING FOR LIGHTS	1	POLE
7	DRILLING FOR LIGHTS	1	POLE
8	DRILLING FOR LIGHTS	1	POLE
9	DRILLING FOR LIGHTS	1	POLE
10	DRILLING FOR LIGHTS	1	POLE
11	DRILLING FOR LIGHTS	1	POLE
12	DRILLING FOR LIGHTS	1	POLE
13	DRILLING FOR LIGHTS	1	POLE
14	DRILLING FOR LIGHTS	1	POLE
15	DRILLING FOR LIGHTS	1	POLE
16	DRILLING FOR LIGHTS	1	POLE
17	DRILLING FOR LIGHTS	1	POLE
18	DRILLING FOR LIGHTS	1	POLE

ITEM NO.	DESCRIPTION	QTY	UNIT
1	DRILLING FOR LIGHT	1	POLE
2	DRILLING FOR LIGHTS	1	POLE
3	DRILLING FOR LIGHTS	1	POLE
4	DRILLING FOR LIGHTS	1	POLE
5	DRILLING FOR LIGHTS	1	POLE
6	DRILLING FOR LIGHTS	1	POLE
7	DRILLING FOR LIGHTS	1	POLE
8	DRILLING FOR LIGHTS	1	POLE
9	DRILLING FOR LIGHTS	1	POLE
10	DRILLING FOR LIGHTS	1	POLE
11	DRILLING FOR LIGHTS	1	POLE
12	DRILLING FOR LIGHTS	1	POLE
13	DRILLING FOR LIGHTS	1	POLE
14	DRILLING FOR LIGHTS	1	POLE
15	DRILLING FOR LIGHTS	1	POLE
16	DRILLING FOR LIGHTS	1	POLE
17	DRILLING FOR LIGHTS	1	POLE
18	DRILLING FOR LIGHTS	1	POLE

ITEM NO.	DESCRIPTION	QTY	UNIT
1	DRILLING FOR LIGHT	1	POLE
2	DRILLING FOR LIGHTS	1	POLE
3	DRILLING FOR LIGHTS	1	POLE
4	DRILLING FOR LIGHTS	1	POLE
5	DRILLING FOR LIGHTS	1	POLE
6	DRILLING FOR LIGHTS	1	POLE
7	DRILLING FOR LIGHTS	1	POLE
8	DRILLING FOR LIGHTS	1	POLE
9	DRILLING FOR LIGHTS	1	POLE
10	DRILLING FOR LIGHTS	1	POLE
11	DRILLING FOR LIGHTS	1	POLE
12	DRILLING FOR LIGHTS	1	POLE
13	DRILLING FOR LIGHTS	1	POLE
14	DRILLING FOR LIGHTS	1	POLE
15	DRILLING FOR LIGHTS	1	POLE
16	DRILLING FOR LIGHTS	1	POLE
17	DRILLING FOR LIGHTS	1	POLE
18	DRILLING FOR LIGHTS	1	POLE

NOTES:
 1. The pole top style is based on the same pole as the pole top, 3/8" above pole top. Dimensions shown are not included.
 2. The pole top style is based on the same pole as the pole top, 3/8" above pole top. Dimensions shown are not included.

HOLOPHANE
 HOLOPHANE.COM 2023

RTA Round Tapered Aluminum Poles

2009 AASHTO Rating

Ref. No.	Base Pole Number	Nominal Pole Height	Nominal Shaft Size & Wall Thickness	2009 AASHTO Rating						Bolt Circ. Dia.	Anchor Bolt Size
				Max. Wt.	Max. Wt.	Max. Wt.	Max. Wt.	Max. Wt.	Max. Wt.		
1	RTA040C	8	4.0 x 3.0 x 125	11.3	283	2.2	230	1.8	140	7.75	.75 x 17 x 3
1	RTA104C	10	4.0 x 3.0 x 125	9.0	176	7.0	175	5.8	140	7.75	.75 x 17 x 3
1	RTA160C	10	5.0 x 3.0 x 125	15.2	250	12.0	250	9.7	243	7.75	.75 x 17 x 3
1	RTA1240C	12	4.0 x 3.0 x 125	9.0	176	5.4	133	4.2	150	7.75	.75 x 17 x 3
1	RTA1250E	12	5.0 x 3.0 x 156	15.4	275	12.1	275	9.8	245	7.75	.75 x 17 x 3
1	RTA1250G	12	5.0 x 3.0 x 156	15.4	325	12.2	305	10.0	250	7.75	.75 x 17 x 3
1	RTA140C	14	4.0 x 3.0 x 125	9.0	176	5.5	185	6.0	150	7.75	.75 x 17 x 3
1	RTA1450C	14	5.0 x 3.0 x 125	9.7	207	7.5	188	5.9	148	7.75	.75 x 17 x 3
1	RTA1450G	14	5.0 x 3.0 x 156	10.7	225	8.3	208	6.7	188	7.75	.75 x 17 x 3
1	RTA1450H	14	5.0 x 3.0 x 156	13.0	275	10.2	255	8.3	208	7.75	.75 x 17 x 3
1	RTA1640C	16	4.0 x 3.0 x 125	9.7	207	8.0	193	7.1	83	7.75	.75 x 17 x 3
1	RTA1650C	16	5.0 x 3.0 x 125	10.7	225	9.7	245	7.8	150	7.75	.75 x 17 x 3
1	RTA1650G	16	5.0 x 3.0 x 156	12.7	250	9.8	245	7.9	188	7.75	.75 x 17 x 3
1	RTA1650H	16	5.0 x 3.0 x 156	15.1	293	12.2	275	10.4	190	7.75	.75 x 17 x 3
1	RTA1850C	18	5.0 x 3.0 x 156	10.1	253	7.9	198	6.2	150	7.75	.75 x 17 x 3
1	RTA1850G	18	5.0 x 3.0 x 188	9.0	225	7.0	175	5.5	150	7.75	.75 x 17 x 3



Item No.	Bolt Dia.	Min. Base Dia.	Min. Base Wall	Bolt Projection	Anchor Bolt	Anchor Set	Anchor Template
1	7/8"	7.5	0.56	3.00 - 3.50	AD-264	AD-264	TMP-113

NOTES:
 OR APPROVED EQUAL TO BE APPROVED BY TWP ENGINEER

AREA LIGHT POLE DETAIL

NOT TO SCALE



PERFORMANCE DATA

NOT TO SCALE

LED Package	Series	270 (2700K, 200lm)	300 (3000K, 210lm)	360 (3600K, 252lm)	420 (4200K, 294lm)	500 (5000K, 350lm)	570 (5700K, 411lm)	650 (6500K, 473lm)	720 (7200K, 535lm)	800 (8000K, 597lm)	900 (9000K, 676lm)	1000 (10000K, 755lm)
P10	AS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	PVS	1.377	1.113	0.925	0.788	0.661	0.568	0.491	0.428	0.375	0.331	0.297
P10	AVS	1.377	1.113	0.925	0.788	0.661	0.5					

